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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/224,219	12/30/1998	S. VINCENT BIRLESON	45981-P016US	3976

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EXAMINER

GESESSE, TILAHUN

ART UNIT

PAPER NUMBER

2685

DATE MAILED: 04/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/224,219

Applicant(s)

BIRLESON, S. VINCENT

Examiner

Tilahun B Gesesse

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 1998.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6,32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Carney (us 5,590,156).

As to claim 1 and 32-33, Carney discloses a tuner (15) for extracting specific signals from a set of signals on a carrier (With this system, the control channels, such as channels 17-1 and 17-2, must typically be assigned to the first tuner 15-1, in order to prevent strong control signal amplitudes such as that of channel 17-1 from being clipped. Otherwise, undesired spurious tones would be created within the control channel bandwidth, see col.9 lines 13-18.) wherein the set of signals have at least one of a set of measurable characteristics (RSSI), see col.7 lines 53-61,

Carney discloses means for determining from the measurable characteristics that are present in a particular set of signals certain desirable tuner operating characteristics, see fig.5,

Carney discloses means operable under control of said determining means for changing the operating characteristics of said tuner, (by changing a tuner is changing the operation characteristics of a tuner) see col.8 lines 40-56.

As to claims 2,4, Carney discloses means for changing power levels with respect to certain of said tuner components., see fig.5.

As to claim 3, Carney discloses means for determining optimum operating characteristics for said tuner depending upon said determined operating characteristics, see fig.5.

As to claim 5, Carney inherently discloses the tuner is constructed on a single substrate.

As to claim 6, Carney discloses the method of operating a tuner (fig.1).

Carney discloses assessing from time to time the incoming signal environment wherein an assessment of said incoming signal environment is a function of signals being processed by said tuner, (col.3 lines 8-41, controlling signal received from subscriber, a base station channel assignment controller),

Kobayashi discloses based on the assessment environment selecting an operating level for said tuner (the control 17 then fine adjusts the tuning correction signal "b" to a smaller value so as to lower the tuning frequency of the RF tuning circuit 2 so that the tuning frequency is fine adjusted to match the desired frequency ,see col. 3 lines 43-47); and

Kobayashi discloses setting the operation of said tuner consistent with said selected operating level; see col.5 lines 1-9.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 9,12,17-19,21 and 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobayashi (us 6,243,570).

As to claims 9, 17-19 and 26, Kobayashi discloses the method of operating a tuner, see fig. 4,

Kobayashi discloses determining optimal tuner operating characteristics from knowledge (based on temperature) of the signals being processed by the tuner, see fig. 5, and

Kobayashi discloses adjusting the tuner operating characteristics, (the control 17 then fine adjusts the tuning correction signal "b" to a smaller value so as to lower the tuning frequency of the RF tuning circuit 2 so that the tuning frequency is fine adjusted to match the desired frequency, see col. 3 lines 43-47)

As to claim 12 and 21, Kobayashi discloses receiving information from an external source (temperature detector #9), see abstract.

As to claim 27, Kobayashi discloses circuitry taking signal measurement of the signal being processed by the tuner, (col. 1 line 52-col. 2 line 4).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 7-8,10-11,13-15,20,22-24 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Grandfield et al (us 5,564,092).

As to claims 7-8,10-11,13, Kobayashi fail to teach to select an optimum power level for said tuner. However, Grandfield et al disclose select power level , see abstract and fig.3.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Kobayashi, in measuring power level for the tuner, in order to adjust the power level to prevent interference.

As to claim 14-15,20,22-24 and 28-30, Kobayashi fails to disclose adjusting power consumption of certain components within said tuner. However, Grandfield et al disclose adjusting power level, see fig. 4 . Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Kobayashi, in measuring power level for the tuner, in order to adjust the power level to prevent over consumption of power.

8. Claims 16,25 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Wheelless (us 5,023,934).

As to claims 16,25,31, Kobayashi fails to disclose channel sweep circuitry and static determination circuitry operable at different times. However, Wheelless discloses channel sweeping and static , see col.5 lines 63-68. . Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Kobayashi, sweeping channels for the tuner, in order to detect the strongest channel for communication.

9. Claims 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carney in view of Wheelless (us 5,023,934).

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As to claims 34-37, Carney fails to disclose channel sweep circuitry and static determination circuitry operable at different times. However, Wheelless discloses channel sweeping and static, see col.5 lines 63-68. . Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Carney, sweeping channels for the tuner, in order to detect the strongest channel for communication.

Response to Arguments

10. Applicant's arguments filed 01/28/02 have been fully considered but they are not persuasive for the following reasons.

I. on page 9, third paragraph of response, applicant argued that assigning a channel based on characteristics of received signal at the tuner is not simply pair to changing the operation characteristics of said tuner. The examiner disagrees. Carney discloses a digital tuner section consisting of an amplifier, analog to digital converter, digital filter bank and controller to assign a transmit frequency to and the gain of the first and second tuner sections of each other adjust independently, to insure that the relatively strong signals are not clipped by the first tuner section, and that the relatively weak signals may be correctly detected by the second tuner section (abstract). This Carney teaching is not fair to read "changing the operation characteristics of said tuner". The examiner strongly believes that Carney teaches "changing operation characteristic of tuner" by adjusting its gain based on received signal strength.

On page 10, first paragraph of response, applicant argued that determining optimum operation characteristics does not reveal any of the teaching by Carney. The

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examiner disagrees. It is to optimum operation the control of clipped and weak signals based on received signal strength by the tuner.

On page 10, second paragraph and on page 11, first and second paragraph, of response, applicant argued that changing the power level of tuner. The examiner disagrees. Carney teaches adjusting the gain of tuner based on receive signal strength. Therefore, it is the adjustment of the tuner that by changing the power level in order to optimum operation of tuner.

On page 12, second paragraph of response, applicant admitted that the language of the claims is broad in the sense that it can be read upon the prior art (variety of knowledge). And argued that knowledge is not temperature of a radio receiver. Had it been applicant claim invention limited to new outcome of the invention itself, applicant's argument would have been legitimate. However, the applicant's claims are so broad to read on any tuner in the field endeavor.

On pages 15-17, of response, applicant argued that Grandfield and Wheelless are not combinable to meet the limitation of claims. The examiner disagrees that both prior art are area of signal processing technique and wireless communication and examiner believes that the combination of these prior art is proper.

Therefore, examiner explained the applicant's concerns above and examiner strongly believe that the cited references read applicant's broadly claimed invention.

11. On page 7, third paragraph of response, Applicant's arguments with respect to claims 6,16,25,27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any response to this action should be mailed to:

*Commissioner of Patents and Trademarks
Washington, D.C. 20231*

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Or:

*(703) 746-6042 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")*

*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington,
VA., Sixth Floor (Receptionist).*

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Tilahun Gesesse whose telephone number is (703) 308-5873..
The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Edward F. Urban, can be reached on (703) 305-4385. The fax phone number for this
Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Group receptionist whose telephone number is (703) 305-4750.

TBG

Apr. 2, 2002

*Tilahun Gesesse
Patent Examiner
Art Unit 2685*


EDWARD F. URBAN
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